NEW SPECIES AND SUB-SPECIES OF S. AMERICAN LEPIDOPTERA. 187

- Redtenbacher, L. "Fauna Austriaca. Die Käfer." Wein. W. 1858. Carl Gerold's Sohn. 360 (1858).
- W. 1911. Reitter, Edm. "Fauna Germanica. Die Käfer des deutschen Reichs." Stuttgart K. G. Lutz (1911).
- Renter, O. M. "Lebensgewohnheiten und Instinkte der W. 1913. Insekten bis zum Erwachen der sozialen Instinkte." Berlin, Friedländer und Sohn (1913).
 - Ruschkamp, F. "Zur Biologie von Leptinus testaceus, 1914. Müll. Phoresie oder Ektoparasitismus? Neue Beobachtungen." Zeitz. wiss. Insektenb. 9139-44 (1914).
 - 1920. Scott, H. "Notes on the biology of some inquilines and parasites in a nest of Bombus derhamellus, Kirby ; with a description of the larva and pupa of Epuraea depressa, Ilig. (= aestiva, Auctt.: Coleoptera, Nitidulidae)." Trans. Ent. Soc. Lond. 1920 99-127.
- Seidlitz, G. (Note on Antherophagus nigricornis) W. 1869-70. L'Abeille 7 lxii.-iii. (1869-70).
- Sharp, D. "Insects." Cambridge Natural History 6 W. 1899. 235 (1899).
- W.S. 1912. Sladen, F. W. L. "The Humble-Bee." Macmillan & Co. (1912). Smith, J. B. "Insects of New Jersey (1909)."
 - W. 1909.
 - S. (1915) Trautmann, G. "Ein äussert seltener Fund: Antherophagus, Latr., nigricornis, Fabr., an einer lebenden Hummel." Intern. ent. Zeitschr. Guben. 9 59 (1915).
 - S. 1896. Tuck, W. H. "Inquiline and other inhabitants in nests of Aculeate Hymenoptera." Ent. Mo. Mag. 32 153-55 (1896).
 - S. 1897. Tuck, W. H. "Coleoptera, etc., in the Nests of Aculeate Hymenoptera." Ent. Mo. Mag. 33 58-60 (1897).
 - Wagner, W. "Psychobiologische Untersuchungen an W. 1907. Hummeln mit Bezugnahme auf der Frage der Geselligkeit in Tierreiche." Zoologica 19 145 (1907).
 - Warner, W. V. (Note on Dichromorpha viridis.) Proc. W. 1903. Ent. Soc. Washington 5 308, 309 (1903).
 - Wheeler, W. M. "The Phoresy of Antherophagus." 1919. Psyche 26 145-52 (1919).
 - W. 1877. Xambeu, P. (Note on Podagrion pachymerus.) Bull. Soc. Ent. France 1877 lxix.

New species and sub-species of S. American Lepidoptera.

By W. J. KAYE, F.E.S.

FAMILY HELICONIDAE.

Heliconius xanthocles, Bat., flavosia, sub-sp. nov.

Very like the figured form of H. xanthocles sub-sp. cethosia, Seitz (Mac. Lep. v. pl. 77a), from which it differs in that instead of having a discal patch of yellow beyond the cell it has it extending inwards and occupying about one-third of the cell area. The discocellular strongly black. Hindwing with the red rays only extending half-way across wing as in cethosia.

Habitat. E. Colombia, Villavicencia, Feb., 1919, J.

Susamuco, Sep., 1917, 9.

Type from Villavicencia, in coll., Kaye.

Heliconius vulcanus, Btlr., tenuistriga, sub-sp. nov.

Forewing with the discal red band greatly reduced in width, being about one half the width of *vulcanus* sub-sp. *cythera*, Hew. The red only on outer half of band, inner half white. Hindwing with the marginal white band broad as in *cythera*.

Habitat. Ecuador, Balzapamba.

This may be only an aberration as *cythera* is found at Balzapamba. The two may occur at different elevations.

Type 2 in coll. Kaye.

FAMILY PIERIDAE.

Hesperocharis nera, Hew., potara, sub-sp. nov.

A strongly marked race with a heavier black border than in typical *nera*, and with strong orange dashes between the veins and also orange at base. Forewing below with some orange dashes on the inner edge of black marginal band in the apical area. Hindwing below with a broad blackish margin with a pair of yellowish streaks at anal angle within the band. Inner area of wing wholly creamy white ground colour with intra-nervular orange streak and a double orange streak within the cell.

Habitat. Central British Guiana, Tumatumari.

Type in coll. Kaye.

Hesperocharis lamonti, n.-sp.

Forewing above white with a slight creamy shade (but much less so than hindwing). Costa at base slightly orange. Apex rather broadly black, strongly toothed internally. The black is extended down outer margin gradually lessening to tornus where it disappears. The black is heaviest at the veins and receding between them. Hindwing above creamy white with an orange patch on costa at base. Outer margin very narrowly edged with black, and most conspicuous at anal angle. Forewing below with costa and apical area (covered by the black above) washed with orange extending as a still paler wash of orange to cell. Hindwing below cream colour, but nearly covered with broad streaks and dashes of pale orange between the veins and within the cell. A minute pink dot at base. Exp. 56mm.

within the cell. A minute pink dot at base. Exp., 56mm. Habitat. Trinidad, Morni Diable, 2 3 3, 6-iv.-1917 (N. Lamont). Type in coll. Lamont.

Glutophrissa drusilla, Cr., jacksoni, sub-sp. nov.

 \mathcal{J} above completely white with glistening scales at base of forewing. Faint yellow at base of forewing below. \mathcal{P} except for shorter wings much like the male and with only a trace of black at apex of forewing. Ground colour creamy white, not dead white, as in \mathcal{J} . Glistening scales at base of forewing strongly developed and occupying a larger area than in \mathcal{J} . Hindwing with faint yellow scaling at base above. Below entirely shiny creamy white as in the apex of forewing beneath. Exp., \mathcal{J} 68mm., \mathcal{P} 55mm.

Habitat. Jamaica. 800 ft. (Dr. F. W. Jackson.)

Type in coll. Kaye.

This Jamaican race of *Glutophrissa drusilla* is quite distinct from the Cuban race (*ilaire*, Poey), or the St. Domingo race (*poeyi*, Butl.). The whole species is very variable both geographically and individually and most probably seasonally. In Trinidad the \mathfrak{P} \mathfrak{P} vary from having hardly a trace of black outer margin of hindwing to a very heavy black band, while the ground colour varies from white to a fairly strong yellow. These extremes belong most probably to different seasons of the year.

FAMILY SYNTOMIDAE.

Mydropastea disparata, n.-sp.

Forewing black with hyaline patches. Tegulae black with metallic green spots and a white point below. Patagia black. Frons black. Femora with conspicuous paired white patches. Abdomen below (in \mathcal{F}) with large elliptical valve edged with white scales. Last four segments edged with orange. Abdomen above with metallic green stripe and broader lateral green stripes. Forewing with a long wedge-shaped transparent spot within the cell and another beneath the cell. Beyond the cell three or four transparent spots in series vertically; first or second or both sometimes absent. Hindwing black with a large central area chiefly below cell transparent. In the 3 the space is divided at the lower discocellular. Exp., 42mm.

Habitat. Trinidad, Rock, 1-i.-18, Palmiste, 9-ix.-17 (N. Lamont). 1 3, 2 9 9.

Type in coll. Lamont.

The Lepidopterist Abroad.

Dedicated to my erstwhile entomological mentor and companion.

H. E. WINSER, Esq.

The tropic day ends and my toil is done Until the morrow, when it starts again, And sitting by my tent I watch the sun

Die down across the bush and o'er the plain.

It seems a link with England, in a way,

Just now when all the world is calm and still,

Because I know that at this hour to-day

This very sun is red on Hascombe Hill.

As stands that cottonwood* in towering might Emblazoned on the purple of the sky,

So stand the oaks in Slythurst Woods to-night ---Nor shall they see my lamp go gleaming by !

No! for this year I may not wander there, My net astream upon the whispering breeze. (Nor sheltered, like a wizard in his lair, Prepare my potions to anoint the trees.)

Sibylla flaunts her beauty unafraid; Euphrosyne may flit adown the dell. Not mine to follow paphia up the glade Or chase—unknowingly—a battered "shell."

* A cottonwood is an enormous tree of the outline of an oak, but at least three times as high. Very common here on the Gold Coast.